Doc code: IDS

09684305 - GALL, 16370)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Doc description: Information Disclosure Statement (IDS) Filed Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE	Application Number		09684305	
	Filing Date		2000-10-06	
	First Named Inventor Kaiser		ser, et al.	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		1637	
(Not lot Submission under or or it not)	Examiner Name	Staple	es, M.	
	Attorney Docket Number		FORS-04447	

				U.S.I	PATENTS Remove		
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1	4511502		1985-04-16	Builder, et al.	Whole Document	
	2	4511503		1985-04-16	Olson, et al.	Whole Document	
	3	4512922		1985-04-23	Jones, et al.	Whole Document	
	4	4518526		1985-05-21	Olson	Whole Document	
	5	4683194		1987-07-28	Saiki, et al.	Whole Document	
	6	4683195		1987-07-28	Mullis, et al.	Whole Document	
	7	4683202		1987-07-28	Mullis	Whole Document	
	8	4775619		1988-10-04	Urdea	Whole Document	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.S./

Application Number		09684305	09684305 - GAU: 1637	
Filing Date		2000-10-06		
First Named Inventor	Kaise	Kaiser, et al.		
Art Unit		1637		
Examiner Name	Staple	Staples, M.		
Attorney Docket Number		FORS-04447		

9	4876187	1989-10-24	Duck, et al.	Whole Document
10	5011769	1991-04-30	Duck, et al.	Whole Document
11	5108892	1992-04-28	Burke, et al.	Whole Document
12	5118605	1992-06-02	Urdea	Whole Document
13	5144019	1992-09-01	Rossi	Whole Document
14	5210015	1993-05-11	Gelfand, et al.	Whole Document
15	5380833	1995-06-10	Urdea	Whole Document
16	5403711	1995-04-04	Walder, et al.	Whole Document
17	5422253	1995-06-06	Dahlberg, et al.	Whole Document
18	5427930	1995-06-27	Birkenmeyer, et al.	Whole Document
19	5487972	1996-01-30	Gelfand, et al.	Whole Document

Application Number		09684305	09684305 - GAU: 1637		
Filing Date		2000-10-06			
First Named Inventor	Kaise	Kaiser, et al.			
Art Unit		1637			
Examiner Name	Staple	Staples, M.			
Attorney Docket Number		FORS-04447			

20	5494810	1996-02-27	Barany, et al.	Whole Document
21	5541311	1996-07-30	Brow, et al.	Whole Document
22	5545729	1996-08-13	Goodchild, et al.	Whole Document
23	5698400	1997-12-16	Cotton, et al.	Whole Document
24	5719056	1998-02-17	Brummet et al.	Whole Document
25	5783392	1998-07-21	Seibl, et al.	Whole Document
26	5792614	1998-08-11	Western, et al.	Whole Document
27	5830664	1998-11-03	Rosemeyer, et al.	Whole Document
28	5843654	1998-12-01	Heisler	Whole Document
29	5843669	1998-12-01	Kaiser, et al.	Whole Document
30	5874283	1999-02-23	Harrington, et al.	Whole Document

( Not for submission under 37 CFR 1.99)

	Application Number		09684305	09684305 - GAU: 1637		
	Filing Date		2000-10-06			
	First Named Inventor	Kaiser, et al.				
	Art Unit		1637			
	Examiner Name	Staple	es, M.			
Attorney Docket Number		FORS-04447				

	31	5882867		1999-03	3-16	Ullman, et al.		Whole	e Document
	32	5888780		1999-03	3-30	Dahlberg, et a	I.	Whole	e Document
	33	5985557		1999-11	-16	Prudent, et al.		Whole	e Document
	34	5994069		1999-11	-30	Hall, et al.		Whole	e Document
	35	6372424		2002-04-16		Brow		Whole Document	
If you wis	h to ad	d additional U.S. Pate	nt citatio	n information please click the Add button.				Add	
-			U.S.P	ATENT	APPLI	CATION PUB	LICATIONS		Remove
Examine Initial*	Cite N	Publication Number	Kind Code <sup>1</sup>	Publica Date	ition	Name of Pate of cited Docu	entee or Applicant Iment	Relev	s,Columns,Lines where vant Passages or Relevant es Appear
***************************************					******************	***************************************	***************************************	*************	
	1								
If you wis	⊥ sh to ad	∣ d additional U.S. Publi	ished Ap	l plication	citatio	l n information p	olease click the Add	d butto	n. Add
			<u> </u>	FOREIG	SN PAT	ENT DOCUM	IENTS		Remove
Examine Initial*		Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup>		Kind Code <sup>4</sup>	Publication Date	Name of Patented Applicant of cited Document		Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	EP0411186	EP			1991-02-06	ABBOTT LAB		Whole Document

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.S./

( Not for submission under 37 CFR 1.99)

Application Number		09684305	09684305 - GAU: 1637			
Filing Date		2000-10-06				
First Named Inventor	Kaise	Kaiser, et al.				
Art Unit		1637				
Examiner Name	Staple	Staples, M.				
Attorney Docket Number		FORS-04447				

	2	EP0482714	EP		1991-10-22	EASTMAN KODAK CO	Whole Document			
If you wis	h to ac	dd additional Foreign Pa	atent Document	citation	information pl	lease click the Add buttor	n Add	1		
-		<del>-</del>	NON-PATE	NT LITE	RATURE DO	CUMENTS	Remove			
Examiner Initials*	Cite No		nal, serial, symp	osium,	catalog, etc), o	the article (when approp date, pages(s), volume-is		<b>T</b> 5		
	1	US Patent Application N	US Patent Application No.: 08/337,164, Filed: 1994-11-03, Dahlberg							
	2	US Patent Application N	US Patent Application No.: 08/402,601, Filed: 1995-03-09, Dahlberg							
	3	Abramson, et al. "Characterization of the 5'-3' Exonuclease Activity of Thermus Aquaticus DNA Polymerase," FASEB J. 5(4) 386 (1991)								
	4	Akhmetzjanov, et al. "Molecular cloning and nucleotide sequence of the DNA polymerase gene from Thermus flavus," Nucl. Acids Res. 20:5839 (1992)								
	5	Altamirano, et al., "Identification of Hepatitis C Virus Genotypes among Hospitalized Patients in British Columbia, Canada," J. Infect. Dis. 171:1034-1038 (1995).								
	6	Anderson, et al. "Quantitative Filter Hybridization", in Nucleic Acid Hybridization, Eds Hames & Higgins, IRL Press, Washington, DC, pp. 73-111 (1985)								
	7	Andrews, Electrophoresi 153-154	s, 2nd Edition, ed	. Anthon	y T. Andrews, C	Clarendon Press, New York,	New York (1986), pp.			
	8	Antao, et al. "A thermody (1991)	ynamic study of ur	nusually	stable RNA and	l DNA hairpins," Nucl. Acids	s Res. 19:5901-5905			

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.S./

Application Number		09684305	09684305 - GAU: 1637			
Filing Date		2000-10-06				
First Named Inventor	Kaise	Kaiser, et al.				
Art Unit		1637				
Examiner Name	Staple	Staples, M.				
Attorney Docket Number		FORS-04447				

9	Bambara, et al., "Enzymes and Reactions at the Eukaryotic DNA Replication Fork," J. Biol. Chem. 272:4647-4650 (1997)	
10	Barany "The Ligase Chain Reaction in a PCR World," PCR Methods and Applic., 1:5-16 (1991)	
11	Barany, "Genetic disease detection and DNA amplification using cloned thermostable ligase," Proc. Natl. Acad. Sci., 88:189-193 (1991);	
12	Bardwell, et al. "Specific Cleavage of Model Recombination and Repair Intermediates by the Yeast Rad1-Rad10 DNA Endonuclease," Science 265:2082-2085 (1994)	
13	Barnes, et al. "Mechanism of Tracking and Cleavage of Adduct-damaged DNA Substrates by the Mammalian 5'- to 3'Exonuclease/Endonuclease RAD2 Homologue 1 or Flap Endonuclease 1", J. Biol. Chem. 271:29624-29632 (1996)	
14	Bergseid , et al. "A High Fidelity Thermostable DNA Polymerase Isolated from Pyrococcus Furiosus," Strategies 4:34-35 (1991)	
15	Bhagwat , et al. "The 5'-Exonuclease Activity of Bacteriophage T4 RNase H is Stimulated by the T4 Gene 32 Single-stranded DNA-binding Protein, but Its Flap Endonuclease Is Inhibited," J. Biol. Chem. 272:28523-28530 (1997);	
16	Binghui, et al. "Flap endonuclease homologs in archaebacteria exist as independent proteins" TRENDS IN BIOCHEMICAL SCIENCES, ELSEVIER. HAYWARDS, GB, vol. 23, no. 5, '1 May 1998 (1998-05-01)', pages 171-173	
17	Bonch-Osmolovskaya, et al. Microbiology (Engl. Transl. of Mikrobiologiya) 57:78-85 (1988)	
18	Borges, et al. "A Survey of the Genome of the Hyperthermophilic Archaeon, Pyrococcus furiosus" (Data Genbank on NLM, U.S. Nat. Lib. of Med.) Genome Science & Technology, 1996, Vol. 1, No. 2, pp. 37-46	
19	Boynton, et al. "Cloning, sequencing, and expression of clustered genes encoding 13-hydroxybutyryl-coenzymeA (CoA) dehydrogenase, crotonase, and butyryl-CoA dehydrogenase from clostridium acetobutylicum ATCC 824" Journal of Bacteriology. June 1996, Vol. 178, No. 11, pages 3015-3024	

Application Number		09684305	09684305 - GAU: 1637
Filing Date		2000-10-06	
First Named Inventor Kaise		r, et al.	
Art Unit		1637	
Examiner Name Stapk		es, M.	
Attorney Docket Number		FORS-04447	

20	Brosius, et al. "Spacing of the -10 and -35 regions in the tac promoter: Effect on its in vivo activity" Journal of Biological Chemistry. 25 March 1985, Vol. 260, No.6, pages 3539-3541	
21	Brow, et al. "Differentiation of Bacterial 16S rRNA Genes and Intergenic Regions and Mycobacterium tuberculosis katG Genes by Structure-Specific Endonuclease Cleavage," J. of Clin. Micro. 34:3129-3137 (1996)	
22	Brutlag, et al., "An Active Fragment of DNA Polymerase Produced By Proteolytic Cleavage," Biochem. Biophys. Res. Commun. 37:982-989 (1969)	
23	Bult, et al. "Complete genome sequence of the methanogenic archaeon, Methanococcus jannaschii" Science 273:1058-1062 (1996)	
24	Carballeira, et al. "Purification of a Thermostable DNA Polymerase from Thermus thermophilus HB8, Useful in the Polymerase Chain Reaction," Biotechniques 9:276-281 (1990)	
25	Carr, et al. "Evolutionary conservation of excision repair in Schizosaccaromyces pombe: evidence for a family of sequences related to the Saccharomyces cerevisiae RAD2 gene" NUCLEIC ACIDS RESEARCH, vol. 21, no. 6, March 1993, p. 1345-9	
26	Ceska, et al. "Structure-specific DNA cleavage by 5' nucleases," TIPS 23 (1998)	
27	Ceska, et al., "A helical arch allowing single-stranded DNA to thread through T5 5'-exonuclease," Nature 382:90-93 (1996)	
28	Chamberlin, et al. "Bacteriophage DNA-Dependent RNA Polymerases" The Enzymes, XV:87-108 (1982)	
29	Copley , et al. "Exonuclease Cycling Assay: An Amplified Assay for the Detection of Specific DNA Sequences," BioTechniques 13:888-891 (1992)	
30	Cuthbert "Hepatitis C: Progress and Problems" Clin. Microbiol. Rev. 7:505-532 (1994)	

Application Number		09684305	09684305 - GAU: 1637
Filing Date		2000-10-06	
First Named Inventor Kaise		r, et al.	
Art Unit		1637	
Examiner Name	Staple	es, M.	
Attorney Docket Number		FORS-04447	

31	DeMott, et al. "Human RAD2 Homolog 1 5'-3'-Exo/Endonuclease Can Efficiently Excise a Displaced DNA Fragment Containing a 5'-Terminal Abasic Lesion by Endonuclease Activity," J. Biol. Chem. 271:30068-30076 (1996)	
	Containing a 3-Terminal Abasic Lesion by Endonderease Activity, 3. Biol. Chem. 271.30000-30070 (1990)	
32	Donnabella, et al. "Isolation of the Gene for the β Subunit of RNA Polymerase from Rifampicin-resistant Mycobacterium tuberculosis and Identification of New Mutations," Am. J. Respir. Dis. 11:639-643 (1994)	
33	Doty, et al. "Strand Separation and Specific Recombination in Deoxyribonucleic Acids: Physical Chemical Studies," Proc. Natl. Acad. Sci. USA 46:461-476 (1960)	
34	Duck, et al. "Probe Amplifier System Based on Chimeric Cycling Oligonucleotides," BioTech., 9:142-147 (1990)	
35	Dunn, et al. "Complete Nucleotide Sequence of Bacteriophage T7 DNA and the Locations of T7 Genetic Elements," J. Mol. Biol. 166:477-535 (1983)	
36	Engelke "Purification of Thermus Aquaticus DNA Polymerase Expressed in Escherichia coli," Anal. Biochem 191:396-400 (1990)	
37	Eom, et al. "Structure of Taq polymerase with DNA at the polymerase active site," Nature 382:278-282 (1996)	
38	Erlich, et al. "Recent Advances in the Polymerase Chain Reaction" Science 252:1643-1651 (1991)	
39	Fahy, et al. "Self-sustained Sequence Replication (3SR): An Isothermal Transcription-based Amplification System Alternative to PCR" PCR Meth. Appl., 1:25-33 (1991)	
40	Garforth, et al. "Structure-specific DNA binding by bacteriophage T5 5'•3exonuclease," Nucleic Acids Res. 25:3801-3807 (1997)	
41	Gelfand, PCR Technology - Principles and Applications for DNA Amplification (H.A. Erlich, Ed.), Stockton Press, New York, p. 19 (1989)	

Application Number		09684305	09684305 - GAU: 1637
Filing Date		2000-10-06	
First Named Inventor Kaise		r, et al.	
Art Unit		1637	
Examiner Name	Staple	es, M.	
Attorney Docket Number		FORS-04447	

	42	GHOSH et al. "Real time kinetics of restriction endonuclease cleavage monitored by fluorescence resonance energy transfer" 1994 Nucleic Acids Research 22(15):3155-3159						
	43	Guatelli, et al. "Isothermal, in vitro amplification of nucleic acids by a multienzyme reaction modeled after retroviral replication," Proc. Natl. Acad. Sci., 87:1874-1878 (1990) with an erratum at Proc. Natl. Acad. Sci., 87:7797 (1990)						
	44	Harrington, et al. "DNA Structural Elements Required for FEN-1 Binding," J. Biol. Chem. 270:4503-4508 (1995)						
	45	Harrington, et al. "Functional domains within FEN-1 and RAD2 define a family of structure-specific endonucleases: implications for nucleotide excision repair," Genes and Develop. 8:1344-1355 (1994)						
	46	Harrington, et al., "The characterization of a mammalian DNA sturcture-specific endonuclease," EMBO Journ. 13:1235-1246 (1994)						
	47	Hiraoka, et al. "Sequence of human FEN-1, a structure specific endonuclease, and chromosomal localization of the gene (FEN1) in mouse and human," Genomics 25:220-225 (1995)						
	48 Hiraoka, et al. GenBank Acc#: NP_004102; 1999-05-07							
	49	Hirao, et al. "Most compact hairpin-turn structure exerted by a short DNA fragment, d(GCGAAGC) in solution: an extraordinarily stable structure resistant to nucleases and heat," Nuc. Acids Res. 22:576-582 (1994)						
	Holland, et al. "Detection of specific polymerase chain reaction product by utilizing the 5'-3' exonuclease activity of Thermus aquaticus DNA polymerase" Proc. Natl. Acad. Sci. USA 88:7276-7280 (1991)							
If you wish to add additional non-patent literature document citation information please click the Add button Add								
EXAMINER SIGNATURE								
Examiner Signature /Mark Staples/ Date Considered 04/16/2012								
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								

Application Number		09684305	09684305 - GAU: 1637
Filing Date		2000-10-06	
First Named Inventor Kaise		r, et al.	
Art Unit		1637	
Examiner Name	Staple	es, M.	
Attorney Docket Number		FORS-04447	

<sup>&</sup>lt;sup>1</sup> See Kind Codes of USPTO Patent Documents at <u>www.USPTO.GOV</u> or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

( Not for submission under 37 CFR 1.99)

Application Number		09684305	09684305 - GAU: 1637
Filing Date		2000-10-06	
First Named Inventor Kaise		r, et al.	
Art Unit		1637	
Examiner Name Stapk		es, M.	
Attorney Docket Number		FORS-04447	

CERTIFICATION STATEMENT							
Plea	Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):						
	That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).						
OF	ł						
	That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).						
	See attached ce	rtification statement.					
	The fee set forth	in 37 CFR 1.17 (p) has been submitted here	ewith.				
×	A certification statement is not submitted herewith.						
	ignature of the ap n of the signature.	SIGNA plicant or representative is required in accor		18. Please see CFR 1.4(d) for the			
Signature /Mary Ann D. Brow/		Date (YYYY-MM-DD)	2011-03-03				
Name/Print Mary Ann D. Brow		Mary Ann D. Brow	Registration Number	42363			
pub	lic which is to file	rmation is required by 37 CFR 1.97 and 1.98 (and by the USPTO to process) an application is estimated to take 1 hour to complete, inclu	on. Confidentiality is gove	rned by 35 U.S.C. 122 and 37 CFR			

application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria**,

VA 22313-1450.

#### **Privacy Act Statement**

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.
- A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.